

#### PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

**INSTALLER: Leave this manual with the customer.**

**⚠ WARNING** READ CAREFULLY THE PRODUCT INSTALLATION, OPERATING AND MAINTENANCE MANUAL. FAILURE TO FOLLOW THE INSTRUCTIONS AND WARNINGS IN THE MANUAL MAY RESULT IN SERIOUS OR FATAL INJURY AND/OR PROPERTY DAMAGE, AND WILL VOID THE PRODUCT WARRANTY. THIS PRODUCT MUST BE INSTALLED BY A QUALIFIED PROFESSIONAL. FOLLOW ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS, IN THE ABSENCE OF SUCH CODES, FOLLOW THE CURRENT EDITIONS OF THE NATIONAL PLUMBING CODE AND NATIONAL ELECTRIC CODE, AS APPLICABLE.

**⚠** THIS IS THE SAFETY ALERT SYMBOL. IT IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY AND OTHER HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO REDUCE THE RISK OF PERSONAL INJURY AS WELL AS PROPERTY DAMAGE.

**⚠ WARNING** This Product, like most Products under pressure, may over time corrode, weaken and burst or explode, causing serious or fatal injury, leaking or flooding and/or property damage. To minimize risk, a licensed professional must install and periodically inspect and service the Product. A drip pan connected to an adequate drain must be installed if leaking or flooding could cause property damage. Do not locate in an area where leaking could cause property damage.

**⚠ WARNING** **RUPTURE OR EXPLOSION HAZARD** A relief valve must be installed to prevent pressure in excess of local code requirement or maximum working pressure designated in the Product Manual, whichever is less. Do not expose Product to freezing temperatures or temperatures in excess of 200° F. Do not adjust the pre-charge or re-pressure this Product except for any adjustments required at the time of initial installation, especially if Product corroded, damaged or with diminished integrity. Adjustments to pre-charge must be done at ambient temperature only. Failure to properly size the Product or follow these instructions may result in excessive strain on the system lead to Product failure, serious or fatal personal injury, leakage and/or property damage.

**⚠ WARNING** **Chlorine & Aggressive Water:** The water quality can significantly influence the life of this Product. You should test for corrosive elements, acidity, total solids and other relevant contaminants, including chlorine and treat your water appropriately to insure satisfactory performance and prevent premature failure.

**Note:** Inspect for shipping damage and notify freight carrier or store where purchased immediately if damage present. To avoid risk of personal injury and property damage, if the product appears to be malfunctioning or shows signs of corrosion, call a qualified professional immediately. Current copies of the Product manual can be viewed at [www.amtrol.com](http://www.amtrol.com). Use proper safety equipment when installing.

**⚠ WARNING** Use only with potable water system. Do not operate in a setting with freezing temperatures or where the temperature can exceed 200°F and do not exceed the maximum working pressure specified for this Product in the Manual. Mount vertically only.

**⚠ WARNING** **CALIFORNIA PROPOSITION 65 WARNING!** This product contains a chemical known by the State of California to cause cancer and to cause birth defects or other reproductive harm. (California Installer/Contractor - California law requires that this notice be given to consumer/end user of this product.) **For more information:** [www.amtrol.com/prop65.htm](http://www.amtrol.com/prop65.htm)

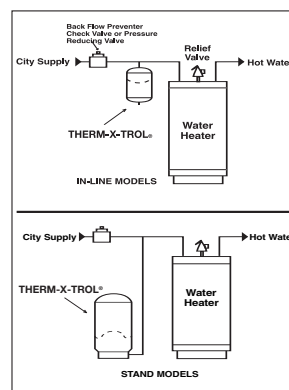
#### Pre-Installation

1. Remove plastic cap from air valve.
2. Adjust pre-charge to equal incoming pressure.
3. Replace and tighten plastic cap on air valve.

#### Installation

1. Install the THERM-X-TROL® on the city supply line to the water heater at a point between the water heater and backflow preventer, check valve or pressure reducing valve (see Figure 1).
2. Once the THERM-X-TROL® is installed, check the city supply line for any leakage. Make repairs if necessary.
3. Before the initial firing of the water heater, open any hot water fixture and draw water until all air is removed from the system. Turn the water heater temperature control to desired ending temperature level, (see water heater instructions).
4. To relieve initial thermal expansion, slightly open a hot water faucet. Continue until water heater aquastat temperature is satisfied. Once heater is at its operating range, no further bleeding of expanded water is required.
5. The water heater and THERM-X-TROL® will now be operational. The THERM-X-TROL® will control pressure increases caused by thermal expansion to a level well below the water heater relief valve setting.

Figure 1.



#### RESIDENTIAL SIZING

Water Heater Size (gals.)	Static Supply Pressure (psi)		
	40	60	80
40	ST-5	ST-5	ST-5
50	ST-5	ST-5	ST-8
60	ST-8	ST-8	ST-8
80	ST-8	ST-8	ST-12
120	ST-12	ST-12	ST-25V

Max. Temp. Setting 150°F

#### COMMERCIAL SIZING

Water Heater Size (gals.)	Static Supply Pressure (psi)		
	40	60	80
40	ST-8	ST-8	ST-8
50	ST-8	ST-8	ST-12
60	ST-8	ST-12	ST-25V
80	ST-12	ST-25V	ST-25V
120	ST-25V	ST-25V	ST-25V

Max. Temp. Setting 180°F

#### Maintenance

1. A professional plumber should check the complete system, including the THERM-X-TROL®, yearly and more frequently as the system ages.

#### Operation

1. The THERM-X-TROL® is installed in the supply line between the backflow preventer and the water heater. Its sealed-in air pre-charge prevents water from entering it until the system pressure exceeds the pre-charge pressure.
2. As the water temperature rises, expanded water enters the THERM-X-TROL®'s non-corrosive water reservoir.
3. As hot water is used, the pressure in the air chamber forces water back into the system until the THERM-X-TROL® is empty.

**NOTE:** Models ST-5, ST-12, and ST-25V are IAPMO listed (International Association of Plumbing and Mechanical Officials). All models are listed (ST-5 thru ST-210V) under ANSI/NSF Std 61.

**NOTE:** ST-25V through ST-240V are floor standing only.



MARK OF THE ORIGINATOR

\* The ST-5, ST-8, ST-12 and ST-25 models come with a 5 year warranty. All other ST Series models come with a 1 year warranty See reverse side for warranty information.

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## AMTROL® INC. LIMITED PRODUCT WARRANTY

**Products covered:** all Products manufactured by AMTROL® Inc. ("AMTROL").

This warranty cannot be transferred – it is extended only to the original Purchaser or First User of the Product. By accepting and keeping this Product you agree to all of the warranty terms and limitations of liability described below.

***IMPORTANT WARNING – READ CAREFULLY THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS MANUAL ("MANUAL") to avoid serious personal injury and/or property damage and to ensure safe use and proper care of this product.***

### Who Receives AMTROL®'s Product Warranty

All purchasers or first users of the new Product. The Warranty is non-transferable.

### What is covered by this Warranty

AMTROL® warrants to the purchaser or first user of the new Product that at the time of manufacture, the Product is free from defects in material and workmanship. **Any warranty claim must be made within one (1) year unless another time period is set forth in the Manual, measured from the time the Product was purchased.**

### What AMTROL® Will Do If You Have a Covered Warranty Claim

In the event of a breach of the foregoing warranty, AMTROL® will at its option either make repairs to correct any defect in material or workmanship or supply and ship either new or used replacement parts or products. AMTROL® will not accept any claims for labor or other costs.

### What This Warranty Does Not Cover — Exclusions and Limitations

This Warranty does not cover any failure or problem unless it was caused by a defect in material or workmanship. In addition, this Warranty shall not apply:

- if the Product is not correctly installed, operated, repaired or maintained as described in the Manual provided with the Product;
- to any failure or malfunction resulting from abuse (including freezing); improper or negligent: handling, shipping (by anyone other than AMTROL®), storage, use, operation, accident; or alteration, lightning, flood or any other environmental condition;
- to any failure or problem resulting from the use of the Product for any purpose other than those specified in the accompanying Manual or alteration of any part of the product;
- if the Product is used anywhere except the United States, its territories or possessions, or Canada;
- this Warranty does not cover labor costs, shipping charges, service charges, delivery expenses, administrative fees or any costs incurred in removing or reinstalling the Product;
- this Warranty does not cover any claims submitted to AMTROL® or an AMTROL®-authorized distributor or retailer more than 30 days after expiration of the applicable warranty time period described in this Warranty;
- this Warranty also does not cover repair or replacement costs not authorized in advance by AMTROL®.

### Additional Warranty Limitations

**ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED.** Some states do not allow limitations on how long an implied Warranty lasts, so the above limitation may not apply to you.

### Limitations of Remedies

**THE REMEDIES CONTAINED IN THIS WARRANTY ARE THE PURCHASER'S OR FIRST USER'S EXCLUSIVE REMEDIES. IN NO CIRCUMSTANCES WILL AMTROL® BE LIABLE FOR MORE THAN, AND PURCHASER-FIRST USER'S REMEDIES SHALL NOT EXCEED, THE PRICE PAID FOR THE PRODUCT. IN NO CASE SHALL AMTROL® BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE, OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT OR FROM AMTROL®'S OWN NEGLIGENCE OR OTHER TORT.** This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence, strict liability, in tort or under any other legal theory. Such damages include, but are not limited to, inconvenience, loss or damage to property, mold, loss of profits, loss of savings or revenue, loss of use of the Products or any associated equipment, facilities, buildings or services, downtime, and the claims of third parties including customers. Some states do not allow the exclusion or the limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

### What To Do If You Have a Problem Covered By This Warranty

Any covered Warranty service must be authorized by AMTROL®. Contact the person from whom you purchased the Product, who **must** receive authorization from an AMTROL® distributor or AMTROL®. If you do not receive a prompt response, call AMTROL® directly at 877-517-9673. Notice of a Warranty claim should be submitted by the authorized distributor to AMTROL® at the following address:

AMTROL® Inc.  
Warranty Claim Dept.  
1400 Division Rd.  
West Warwick, RI 02893

Before AMTROL® determines to provide any replacement part or Product, it may as a pre-condition to making such a determination require that the warranty claimant ship the Product, postage prepaid to an authorized AMTROL® distributor, or to AMTROL® and provide proof of purchase evidenced by the original sales receipt or Product registration.

### Replacement Product Warranty

In case of replacement of a Product or any component part, AMTROL® reserves the right to make changes in the design, construction, or material of the substitute components or products, which shall be subject to all of the terms and limitations of this Warranty, except that the applicable warranty periods shall be reduced by the amount of time the warranty claimant owned the product prior to submitting notification of the warranty claim.